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How Environmental Issues Threaten Industry
Why Unleaded Age Offers Opportunity, Risk
Can Government Investigate Price Hikes?

NPN
National Petroleum News

et Ready... Get Set...
apanese Are Sizing Up
.S. Gasoline Market

NPN
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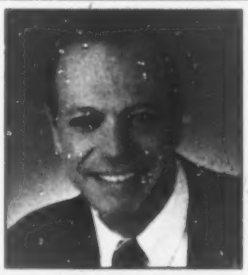

Editor's Viewpoint

No one outside of a rubber room wants "dirty" air. Moreover, most people know there's a price for a safe environment and are willing to pay. What we expect, though, is the most effective, least costly means to achieve that end. But we have a queasy feeling that government is doing just the opposite because it's in a frenzied panic to appease environmental extremists.

These days, for instance, there's a big push for oxygenated fuels to cut auto emissions. This "solution" will cost billions—and a far less costly and less disruptive method may be available. What is this remarkable alternative? It's called a tune-up, something the auto industry has extolled for years as a means of controlling emissions. Donald H. Stedman, a chemistry professor at the University of Denver, says studies at that institution show the same EPA database used to justify oxygenated fuels also indicates that tuning up the relatively small number of high-polluting cars would be twice as effective in controlling carbon monoxide emissions as using oxygenated fuels.

Stedman's conclusions appeared in an editorial piece in the *Wall Street Journal* and I called him for details. There's too much to cover in this space, but here are some key points he made in our conversation and in his article.

* Half the carbon monoxide emitted comes from about 10% of vehicles tested. What's interesting is that half the improvement in per mile carbon monoxide emissions attributed to using oxygenated fuels comes from the same 10% of the fleet. Stedman says—based on studies on the effectiveness of tune-ups—that if those same few "dirty" cars had their emissions systems tuned to equal the average of the rest of the fleet, total emissions would be cut almost twice as much as by using oxygenated fuels for the entire fleet.

* Stedman says the University has developed a remote sensing device which can identify dirty vehicles very cheaply. He estimates that a program based on remote sensing and tune-ups of high-polluting vehicles would cost about $40 per ton of eliminated carbon monoxide. An EPA sponsored study estimates the cost of mandated oxygenated fuel programs to be $500 per ton. Annual exhaust pipe inspection and maintenance programs come in at $780 per ton.

Stedman also says there is no evidence oxygenated fuels have any long term effect on clean air. He points out air quality improved in Brazil for about two years after an extensive oxy fuel program went into effect—but in the past 2-1/2 years has gotten worse. He also told me there is no evidence California's much-touted clear air program has improved air quality (though there's no way to know how bad the air would have been without the program).

Will we get our money's worth from the oxy fuel plan or will it rank with the Pentagon's $100 hammers and $500 toilet seats. *—Frank M. Victoria*

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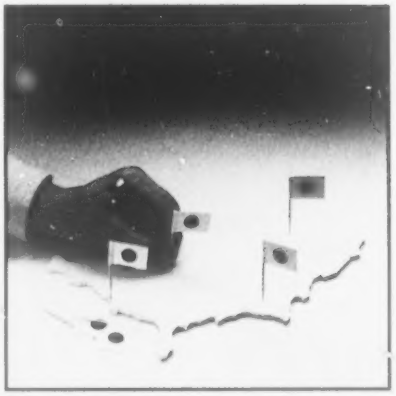

The cash-loaded Japanese haven't yet made the big inroads into the U.S. gasoline market they have in other industries. But that could change, beginning this year.

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The exceptionally high cost of meeting the government's environmental mandates could bring even more traumatic changes for jobbers and refiners in the decade ahead than in the 1980s.

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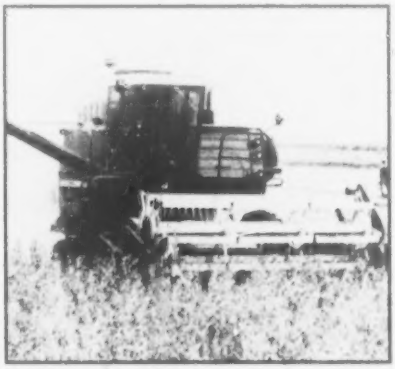

The phasedown of leaded gasoline has forced many jobbers with farm and marine customers to step into the unregulated world of lead additives. This can mean both opportunity and risk.

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● TRENDS

Wall Street's Latest Egg Splatters Oil Takeovers

The mega-billion dollar collapse of Wall Street's Drexel Burnham Lambert, frightening as it was for big investors and small money manipulators alike, unquestionably defused some of the time bombs out there that might have become explosive takeover putsches in the domestic oil industry this year or next.

DBL was just about the biggest apostle of them all in the sale of so-called junk bonds—high risk ventures that paid off handsomely for the high rollers but were, nevertheless, worrisome investments that caused nervous tics and constant surveillance for signs of relapse.

DBL's collapse may have been the death knell for such junk bonds. If this can be considered a marketplace truism, then there's little likelihood that there will be any more mega-billion thrusts or takeover successes in the petroleum industry this year, next year or the rest of the '90s, as far as that goes.

Remember, it cost Chevron $13-billion to acquire Gulf in a white knight takeover a decade ago. Dupont paid $6-billion for Conoco and U.S. Steel laid out another $6-billion for Marathon in a bitter battle with Mobil for the tough little independent. Like everything else in the economy, purchase prices have gone up considerably in the last 10 years. In many cases, corporate price tags have doubled and tripled.

Technically, there are only two oil companies "in play" at this time, Chevron and Marathon, although a half dozen second-tier companies often are talked about as sitting ducks.

Pennzoil made a $2-billion investment in Chevron in 1989, acquiring an 8% interest in the process. It also said it wanted to boost that percentage to 11% this year. This was the money that it wrested away from Texaco in that classic legal battle of the mid-'80s and to head off a potential tax problem; it had to do something with the money before the end of this year.

Pennzoil has insisted that it was not interested in acquisition per se, that this was strictly an investment. However, this doesn't wash with other Pennzoil statements in the past that it would like to own an oil company and was actively looking at any and all possibilities up and down the line. Some time ago it said it had already looked at the private portfolios of at least three dozen companies; not all oil, of course.

Chevron views the Pennzoil investment as a serious preliminary to a takeover battle or, at least, a forced restructuring of the oil company, including the sale of many of its assets to pay off corporate indebtedness. Chevron has already hauled the doughty Houston firm into federal court to force it to reveal company documents or expansion plans which would or should throw some light on its real intentions. This is an ongoing affair that'll probably last all summer.

Carl Icahn, the New York corporate raider, has a 10% interest in Marathon and has already made one run on the company. The indications are that he wants to do it again this spring. The chairman of USX, which owns Marathon, has said on one or more occasions in the past that he would not be adverse to parting with it if the price was right and it would enable the steel company to strengthen itself structurally and focus its attention on its basic business operation. But Marathon has been such a nice cash cow for USX that it's unlikely that it would let go if and when the chips were down. That includes Icahn's possible role this spring.

The big point is that Chevron will probably cost a successful buyer maybe about $25-billion to $30-billion and Marathon would command maybe $10-billion by the time the shooting's all over.

It's hard to see how either of these raids could be carried out without junk bonds or a Wall Street equivalent, whatever it might be called.

The feeling seems to be growing that unless Chevron and Marathon would really want to be taken over (ahem, perish the thought), there isn't much likelihood that either could be drawn and quartered in the immediate future.

—J. Richard Shaner

● MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

January	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.093	$1.006	$1.042	$1.230
Regions				
Northeast	1.114	1.091	1.038	1.250
North Central	1.109	1.053	1.072	1.277
South	1.100	1.065	1.041	1.208
West	1.030	0.957	1.003	1.206

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	3/2/90	3/3/89
Gasoline (Total)	246,393	246,409
Gasoline (Unleaded)*	197,030	165,897
Jet Kerosine	39,870	35,720
Distillates	114,401	106,894
Residual	49,900	43,649

**Included in gasoline total.*

Source: American Petroleum Institute.

Industry Reps Seek Tank Insurance Relief

Armed with new survey data confirming an alarming number of service station closings (see box), representatives of the four major gasoline marketer associations met with Environmental Protection Agency administrator William Reilly and petitioned for a suspension of EPA's financial responsibility rules for underground tanks. The groups suggested EPA delay the compliance deadlines from April 26 and October 26 this year to Dec. 22, 1991.

A week later, the same four groups took their appeal to Congress, testifying at a hearing of the Senate Subcommittee on Environmental Protection.

The meeting with Reilly and other key EPA officials gave the industry spokesmen a chance to voice their concerns over a wide range of environmental issues, according to those in attendance.

The petition was signed by representatives of the Petroleum Marketing Assn. of America (PMAA), the Service Station Dealers of America (SSDA), the Society of Independent Gasoline Marketers of America (SIGMA) and the National Assn. of Convenience Stores (NACS). Attending the meeting were SSDA executive director Joe Koach and counsel Jim Daskal, PMAA executive vice president Phillip Chisholm and Jeff Leiter, counsel for both SIGMA and NACS.

The EPA had most of its top guns at the meeting. In addition to Reilly, also present were the deputy administrator, general counsel, assistant administrators for air, policy, water and solid waste, as well as the associate administrator for Congressional Affairs and representatives from the offices of Underground Storage Tanks and the Ombudsman.

Those attending the meeting report that a big portion of the discussion centered on the uncertain financial responsibility situation. They pointed out that although 37 states have adopted some form of a state trust fund, only five state funds have been approved by EPA for meeting financial responsibility requirements.

According to the group, EPA made no

(Continued on page 24)

States Expected To Boost Motor Fuel Taxes This Year

With highway travel booming and the nation's roads and bridges falling into increasing disrepair, the Highway Users Federation says most states are planning to jack up motor fuel taxes and other highway levies in 1990.

In its annual state legislative forecast, the Federation reports that of the 44 state legislatures scheduled to meet in 1990, only Iowa, West Virginia and Wisconsin have not put an increase in highway revenues on the agenda. But that could change too, according to the federation.

Arkansas, Montana, Nevada, North Dakota, Oregon and Texas have no legislative sessions scheduled in 1990.

According to the highway users group, 12 states are expected to seek a flat cents-per-gallon increase this year, while 19 states are considering issuing bonds for highway projects. Nine states will consider an increase on diesel fuel only, six states are planning to use general funds for highway projects and two states are thinking about repealing or decreasing the tax exemption for gasohol.

In addition, 16 states will debate allowing local jurisdictions the option of taxing motor fuel and 18 states are looking at an increase in truck and bus fees and taxes.

The federation says that 10 states are expected to introduce bills to dedicate user fees to highway purposes, but that 18 states are expected to consider measures that would divert user fees to non-highway purposes.

Meanwhile, opposition to a proposed increase in the federal gasoline tax continues to grow among the states, with over 30 having passed resolutions in 1989 opposing such an increase for purposes of deficit reduction. Another 11 states are expected to consider similar resolutions this year. The federation notes that the Federal Highway Trust Fund has built up a cash balance of nearly $17 billion already paid in by highway users but withheld by the feds for budgetary reasons unrelated to highway needs.

Self Serve Remains Motorists' Choice

Self service gasoline sales increased 1% last year as more motorists chose self serve over full serve when buying gasoline. Since 1985, the market share for self serve has increased from 77% to 81%, according to Amoco Oil Co. marketing research.

This is the third consecutive year that self serve sales have risen by 1%. The 1989 survey shows that the self serve market share in the U.S. increased in 35 states and the District of Columbia, while decreasing in two and remaining unchanged in nine.

State	1989	1988	chg.
Alabama	83%	83%	NC
Arizona	94	93	+1
Arkansas	85	83	+2
California	92	91	+1
Colorado	94	93	+1
Connecticut	74	72	+2
Delaware	86	85	+1
D.C.	87	83	+4
Florida	92	91	+1
Georgia	89	88	+1
Idaho	90	89	+1
Illinois	90	88	+2
Indiana	88	88	NC
Iowa	85	85	NC
Kansas	84	82	+2
Kentucky	80	79	+1
Louisiana	91	90	+1
Maine	57	53	+4
Maryland	87	86	+1
Massachusetts	53	52	+1
Michigan	89	87	+2
Minnesota	84	83	+1
Mississippi	83	82	+1
Missouri	85	83	+2
Montana	91	91	NC
Nebraska	82	81	+1
Nevada	94	93	+1
New Hampshire	68	65	+3
New Mexico	92	92	NC
New York	60	59	+1
North Carolina	89	88	+1
North Dakota	81	78	+3
Ohio	87	86	+1
Oklahoma	86	86	NC
Pennsylvania	68	66	+2
Rhode Island	69	66	+3
South Carolina	90	89	+1
South Dakota	80	81	-1
Tennessee	85	85	NC
Texas	92	92	NC
Utah	95	94	+1
Vermont	62	59	+3
Virginia	90	90	NC
Washington	92	91	+1
West Virginia	78	75	+3
Wisconsin	90	89	+1
Wyoming	85	86	-1
All States	81	80	+1

Note: Self-Serve is illegal in New Jersey and Oregon.
Source: Amoco Oil, Monthly Survey.

Twin EIA Forecasts Foresee Little Excitement For Five Years Or More

The latest Short-Term Forecast by the federal government's Energy Information Administration routinely replicates prior projections about the immediate future, but the Annual Long-Range Forecast, issued about the same time, says things could heat up quite a bit by 2000.

An interesting point to be aware of at the outset: Neither the long-term nor the short-term forecasts seemingly give any consideration to the motor fuel upheaval that is in the making for the '90s; i.e., the idea of reformulated motor fuels, a subject now being pursued intensively by the majors in concert with the automakers; methanol as an additive or as a substitute fuel; natural gas as a whole new way to go, etc. There are any number of variations which could explosively alter the whole motor fuel scenario by the mid-to-late 1990s or early 2000s.

Here are some of the highlights of the Short-Term Forecast assuming, of course, there are no major changes in the old order this year or next:

- Gasoline demand will be flat, slightly under last year's 7.31-million b/d and even more in relation to 1991's 7.32-million b/d.
- Average gasoline prices (all grades and services) will peak at $1.11 gal. in the third quarter and average $1.10 gal. for the year. In 1991, the summer peak will be $1.16 gal with the average for the year being $1.11 gal. By way of comparision, last year's peak came in the second quarter, $1.13 gal. The year's average was $1.11 gal.
- Leaded gasoline will inch closer to oblivion in both 1990 and 1991. Unleaded gasoline will command 89.2% of the marketplace this year and 90.3% by the end of next year. But again, with near panic in the motor fuel segment of the industry, who knows what may happen?
- Distillate supplies should be plentiful throughout the rest of 1990 and all of 1991. Distillate wholesale and retail prices will probably average out about 3¢ gal. higher this year as a result of spikes last winter. But 1991 is expected to see them at normal levels again, 61¢ wholesale and 95¢ retail.
- Imports will increase in 1990 and 1991. A recent American Petroleum Institute statement said imports exceeded 9.1-million b/d in January, an all-time monthly high that equalled 54% of domestic deliveries.

What happens on down the road, after 1995 that is, hinges entirely on economic growth. If the latter is lusty, crude oil prices could be in the neighborhood of $47 bbl. in 2010, EIA says. If economic growth is on the low side, crude oil prices likewise would be only $26 or so bbl. That would suggest gasoline prices as high as $3 gal. or so in 2010 or as low as $1.50. (This obviously assumes that there would be no increases in federal or state excise taxes.)

"Rising demand, limits on future contributions from non-OPEC sources, and the concentration of world oil resources in OPEC nations will lead to more rapid increases after the mid-1990s," EIA's long-range forecast says.

Gasoline demand, 20 years from now, may be as much as 1.8-million b/d higher than it is now, or as little as 600,000 b/d more—assuming, of course, that gasoline is still the primary motor fuel in 2010.

The Boxscore: 1989, 1990 and 1991 Forecasts All In A Row

THIS YEAR

1990	1Q	2Q	3Q	4Q	Year
DEMAND (million b/d)					
Motor Gasoline	6.95	7.43	7.41	7.32	7.28
Leaded	.66	.68	.84	.80	.84
Unleaded	6.09	6.55	6.57	6.53	6.44
% Unleaded	87.6%	88.2%	88.7%	85.7%	89.2%
Distillates	3.51	3.00	2.83	3.23	3.14
Residual	1.44	.99	1.04	1.28	1.19
Total U.S.(a)	17.58	16.64	16.82	17.27	17.17
PRICES (per gal.) (b)					
Motor Gasoline (c)	1.09	1.10	1.11	1.09	1.10
No. 2 Diesel Fuel	1.09	1.00	.99	1.02	1.02
No. 2 Heating Oil					
Wholesale	.69	.54	.55	.60	.61
Retail	1.07	.90	.86	.90	.95
Residual (d)	.44	.38	.40	.42	.42

NEXT YEAR

1991					
DEMAND (million gal. b/d)					Year
Motor Gasoline	6.96	7.47	7.45	7.37	7.32
Leaded	.73	.75	.71	.66	.72
Unleaded	6.25	6.73	6.74	6.69	6.61
% Unleaded	89.5%	90.1%	90.5%	90.8%	90.3%
Distillates	3.61	3.08	2.91	3.31	3.23
Residual	1.38	.95	1.02	1.27	1.15
Total U.S.	17.67	16.81	16.90	17.93	17.35
PRICES (per gal.) (b)					
Motor Gasoline (c)	1.06	1.12	1.16	1.10	1.11
No. 2 Diesel Fuel	1.01	1.01	1.01	1.03	1.02
No. 2 Heating Oil					
Wholesale	.59	.56	.58	.60	.58
Retail	.94	.90	.87	.92	.92
Residual	.43	.40	.41	.42	.42

LAST YEAR

1989					Year
DEMAND (million gal. b/d)(*)					(*)
Motor Gasoline	7.08	7.46	7.42	7.30	7.31
Leaded	1.00	.92	.80	.58	.82
Unleaded	6.08	6.54	6.62	6.72	6.49
% Unleaded	85.9%	87.7%	89.2%	92.1%	88.8%
Distillates	3.38	2.98	2.82	3.42	3.15
Residual	1.60	1.24	1.12	1.43	1.35
Total U.S. (a)	17.62	16.81	16.78	17.55	17.19
PRICES (per gal.) (b)					
Motor Gasoline (c)	.98	1.13	1.10	1.05	1.06
No. Diesel Fuel	.94	.99	.95	1.06	.99
No. 2 Heating Oil					
Wholesale	.53	.53	.53	.73	.50
Retail	.86	.86	.82	.97	.89
Residual (d)	.36	.41	.37	.43	.49

(*) Fourth quarter '89 are estimates; (a) includes all other oils; (b) includes federal and state taxes on all products except heating oil which is not taxed; (c) average for all grades and services; (d) average for all grades of sulfur. Source: Energy Information Administration, Short-Term Energy Outlook, dated January, published February 1990.

Updated Survey Shows Fairly Static Growth In Service Station Population

An annual survey taken over by private enterprise after being chopped from the federal budget in January 1989 suggests there have been no significant changes in the service station population in recent years. Sales at individual stations have continued to rise, however, and now average a record-breaking $1-million each for the first time, according to the new survey.

Taken at face value, the new survey implies that the great slump in the U.S. service station population, which has been underway for almost 20 years, has finally come to an end. The all-time high was recorded in 1972—226,500 service stations. The new count is 111,700—just about 50% less than it used to be 18 years ago.

"Franchising in the Economy" had been an annual publication of the Dept. of Commerce for roughly a score of years but it was suddenly dumped last January when the outgoing Reagan administration refused to fund its operations anymore. The new report takes over where the other left off.

The project was taken over by the International Franchising Assn. in Washington as a private enterprise endeavor. The new report, issued in late January, was about the same size than its predecessors, and generally on the same track. The old editor, Andrew Kostecka, was retained as a consultant by the international association to handle the transitional details and lay the groundwork for future surveys.

Service stations counted in his survey are those known as "true" service stations, i.e, those which get 50% or more of their income from the sale of gasoline and related products.

C-store types, garages, car washes, etc., are not included in this survey.

The new study reconfirms that the 1989 outlet population was approximately 112,000, down 1,150 from the preceding year. For 1990, the survey said the population would decline almost fractionally—to 111,700. This is a change of only 0.3%.

On the other hand, sales at the service station facilities boomed in 1988, 1989 and 1990. They now exceed $1-million, a new all-time high.

Chart 1 shows some of the details.

Interestingly, the new franchising report also updates its older figures on convenience stores. The problem here is that the franchisees and the franchisors represent only about one fifth the real population.

This study accounts for 17,000 stores while industry circles generally agree that there are approximately 80,000 stores in business. Chart 2 provides an overview.

Station Growth Is Static But Sales Hit Record Highs

Chart 1

	1990	1989	1988
Number of Service Stations			
Company Owned	20,106	20,160	20,637
Franchisee Owned	91,594	91,840	92,783
Total	111,700	112,000	113,150
Ratio to Total Establishments			
Company Owned	18%	18%	18%
Franchisee Owned	82%	82%	82%
Sales of Products and Services (Add 000,000)			
Company Owned	$20,711	$19,537	$18,345
Franchisee Owned	93,348	89,004	83,571
Total	$115,059	$108,541	$101,916
Average per Station (000)	$1,030	$969	$901
Employment	NA	NA	626,800

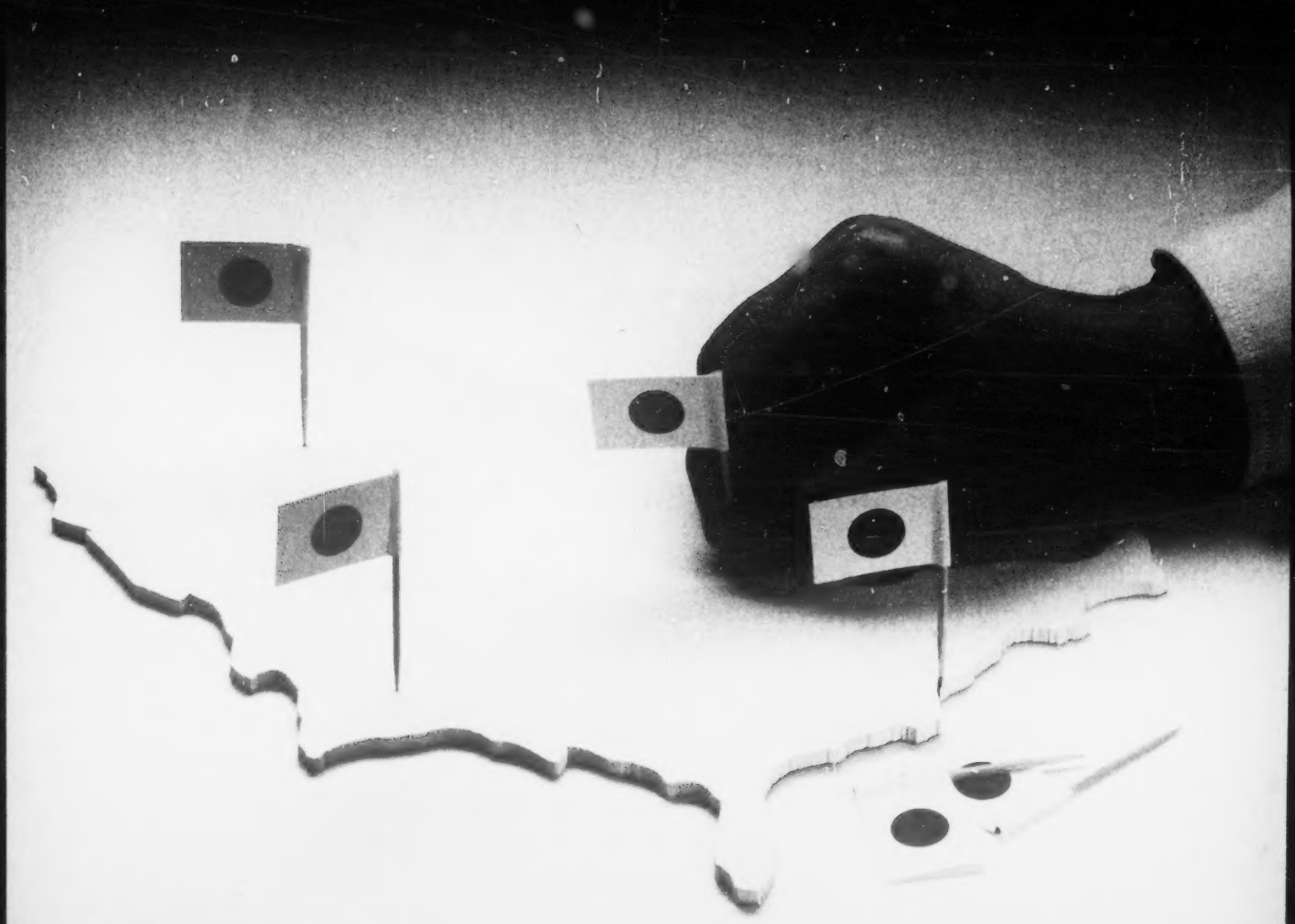
Source: "Franchising in the Economy 1988-1990," published by International Franchising Assn., Washington, D.C.
(*) This is the 1988 data as it appeared in the last government survey, "Franchising in the Economy 1986-1988," published in January 1988 by the U.S. Commerce Dept.

Chart 2

	1990	1989	1988
Number of stores			
Company Owned	10,880	10,948	10,794
Franchisee Owned	6,587	6,341	6,417
Total	17,467	17,289	17,211
Ratio to Establishments			
Company Owned	62.3%	63.3%	62.7%
Franchisee Owned	37.7 %	36.7%	37.3%
Total Sales (000)			
Company Owned	$9,572,172	$9,415,650	$9,247,960
Franchisee Owned	4,846,287	4,634,840	4,647,980
Total	14,418,459	14,050,490	13,895,940
Average sales per store (000)			
Company Owned	$880	$860	$857
Franchisee Owned	736	731	724
Total	825	813	807
Employment (Total)	NA	NA	149,150
Company Owned	NA	NA	117,863
Franchisee Owned	NA	NA	31,287

Source: Same as above.

Get Ready...Get Set... Japanese Are Sizing Up U.S. Gasoline Market



J. Richard Shaner
Executive Editor

Historic times are on the horizon for American oil marketers, especially those in the gasoline segment. About the only U.S. business operations that the cash-loaded Japanese haven't bought major pieces of yet is the domestic oil industry. The Nipponese are known to be working on that now, however. More than likely, the preliminaries will start happening this year or next with all signals in the go pattern by 1992-'93.

In other words, Japanese-owned (wholly or in part) service stations can be expected to be a part of the American highway scene just like the Toyotas, Subarus, Nissans, Hondas and Mitsubishis that are out there by the millions now.

They're not going to be a string (or strings) of stations designed especially to cater to motor vehicles with Asian heritages or anything like that. Look instead for good, clean stations of basic design, with MPDs, car washes, C-stores, cash machines, etc., and maybe some extras competing for the Yankee dollar just like the other foreign-owned oil companies already out there—Shell, BP-America, Citgo, Total and Texaco's Star Enterprise.

What the Japanese are likely to bring into the American scene may be uplifting, however. They're extremely competitive, almost voraciously so. They've coped with government controls, allocations and thin margins for years and are just now emerging from these restrictions and limitations. In most of their "Buy America" purchases so far, they have been sticklers about wanting their own top execs to be management-level participants in running day-by-day operations. They are consumer-conscious to a degree many American oil marketers never experienced before.

Timetable

Depending on which way they come in—by acquiring middle-sized oil companies complete with refineries and service stations or simply strings of service stations—there seems to be little question that they have the potential of shaking up gasoline marketing like it hasn't been shaken for years.

All that's really needed to get Japanese investors and Nipponese oil companies to make the financial plunge is a rise in crude and product prices.

The closer global crude prices edge up to the $30 to $35 bbl. range—which most economic forecasters think is a lead pipe cinch by the mid-to-late '90s, most certainly by 2000—the headier will become the prospects.

World crude oil prices are around $22 bbl. now, having crawled back slowly from the 1986 collapse and the $14 bbl. it spawned then. The all-time high for imported crude oil was the $35 bbl. to $40 bbl. racked up in 1980 and 1981.

But don't look at this $35 bbl. crude as the only factor of consideration. The Japanese are overburdened with yens and ambitions and are known to be looking at any and all "windows of opportunity," in petroleum exploration, production, refining and marketing in North America.

They've cut their operable refining capacity by roughly 2-million b/d to about 3.9-million b/d. But that's still enough to take care of all of their homeland gasoline requirements, if need be, and still have upwards of 100,000 b/d of high grade, high octane gasoline available for export. No telling where this surplus would wind up but it might get to California, as did Chinese motor fuel of a lower quality several years ago.

There had been considerable speculation last summer that 1990 or 1991 would see the initial "big time" penetration of the U.S. petroleum industry.

There were, in fact, investment conversations going on in early 1990 as well as marketplace evaluations by Japanese firms

Typical of Japanese service stations are these operated by Shell/Kosan and Cosmo Oil Co., one of the top five independent oil companies in Japan. The stations are clean, well kept and attractive. (Note the dual language signage. The Japanese have a fondness for English language signs which, some sources say, dates back several hundred years.) Japanese stations in the U.S. would be no different: good, clean stations of basic design, with MPDs, car washes, C-stores, cash machines, etc.

THE JAPANESE MOTOR FUEL MARKET

**By Volumes and Market Shares

Company	U.S. Gal. Per Year (Add 000) *	Mkt. Shr. Percent
Nippon Oil	1,889,564	16.6%
Idemitsu	1,658,124	14.6%
Shell	1,535,007	13.5%
Cosmo	1,387,583	12.2%
Kyodo	1,334,742	11.7%
Mobil	929,458	8.2%
Mitsubishi	912,814	8.0%
Esso	715,192	6.3%
General	518,626	4.6%
Kygnus	212,946	1.9%
Kyushu	157,992	1.4%
Taiyo	113,078	1.0%
Totals	11,365,126	100.0%

***By Service Station Population*

Company	No. of Svc. Stas.	Mkt. Shr. Percent
Nippon Oil	9,890	18.4%
Idemitsu	8,951	16.7%
Shell	7,081	13.2%
Cosmo	6,920	12.8%
Kyodo	6,386	11.9%
Mitsubishi	4,486	8.4%
Mobil	3,591	6.7%
Esso	2,353	4.4%
General	2,207	4.1%
Kygnus	885	1.6%
Kyushu	798	1.5%
Taiyo	146	0.3%
Totals	53,694	100.0%

***By Gals. Per Outlet*

Company	Avg. Gal. Per Sta. Per Year *	Avg. Gal. Per Sta. Per Month
Taiyo	774,507	65,542
Esso	303,949	25,329
Mobil	258,830	21,569
Kygnus	240,617	20,051
General	234,991	19,583
Shell	216,778	18,065
Kyodo	209,011	17,418
Mitsubishi	203,481	16,957
Cosmo	200,518	16,710
Kyushu	197,985	16,499
Nippon	191,058	15,922
Idemitsu	185,245	15,437

** Like most of the world, Japan uses the metric system for its statistics. The U.S. gallons in these tables are conversions, using 3.785 liters as the counterpart of 1 U.S. gallon. These statistics are for a 12-month period ending last summer and were supplied to NPN by responsible Japanese sources.*

***By Motor Vehicles in Use*

Year	Passenger Cars	Trucks, Buses, Etc.	Total Vehicles
1988	30,776,243	21,673,912	52,450,155
1985	27,844,580	18,312,681	46,157,261
1980	23,659,520	14,196,654	37,856,174
1975	17,236,321	10,854,237	28,090,558
1970	8,778,972	8,802,871	17,581,843
1965	2,181,275	4,118,745	6,300,020
1960	457,333	896,193	1,353,526

Source: Japan Ministry of Transport.

which had set up satellite headquarters in New York and the West Coast for that purpose alone *[NPN*—Nov. '89, p7).

But that seems to have been backed off a bit for now; not terminated by any means, just slowed down by the problems associated with Japan's deregulation of its own gasoline industry, which is in the final stages, and by global surpluses of crude and product which are inhibiting price increases.

One conversation between a Texas oil company and a top-ranking Japanese firm was terminated in November and revived for "another look" in January. About the same time, another big Nipponese oil company had some of its top marketing executives eyeballing service station sites on the West Coast, not for immediate investment but to get a handle on what the competition would be like for an invader.

Meantime, some American companies were known to be beating the bushes privately for joint-venture investors, Japanese or otherwise, and/or letting it be known that they would be more than glad to sit down and talk.

Rising sun alert

When the Japanese do get here, watch out America! Watch out. Watch out all downstream marketers, fuel oil, avgas and similar products included. If the Japanese apply the same shrewdness, toughness and technologies to the local scene that they do in their own island empire marketplaces, U.S. gasoline operations may never be the same. One only has to look at the automobile market to see the handwriting on the wall.

There is no such thing as self service in Japan. A customer filling his own tank is unthinkable. This would change in the U.S.

For example, retailer competition for gallonage in the big cities of Japan is so intense that driveway hawkers or greeters are used by all of the service stations to lure customers in to the pumps.

They shout, they cajole, they bow, they soft soap potential customers with smiles and elan, and all but escort them personally to the islands for service.

There, neatly dressed and/or uniformed attendants (lads and lassies alike) do what American stations used to do in the '60s—they wash the windows, check tire-pressure levels, rub off blemishes on the car, check the oil and other fluid levels, whisk dust or dirt (real or imagined) from the floor, everything and anything to make their customers happy, whether they buy a liter or a tank full of motor fuel.

Not just one attendant either, but several for each car. The service people take training and certification courses to qualify for their jobs, are happy with their work and are paid about $1,400/mo. American wage scales are usually federal minimums of about $700 to $800/mo. But then Japan's economy is on fire and inflation has made routine items fairly expensive by American standards.

Another item of importance: Japanese marketplaces, i.e., the service stations, are dominated and controlled not by the suppliers and brands, as in this country, but by the wholesalers-distributors. These men negotiate their prices with the suppliers but also with the outlets which they service. Unlike the American "cash on the barrelhead" approach to gasoline purchases, Japanese retailers do not pay for the product until after they sell it. The suppliers usually transport the product to the stations as specified by the distributors. 'Tis a bit confusing but the dynamite is in the hands of the distributors—along, of course, with the government controls that are now being phased out.

Operational scenarios

At this point in time, it would be hard to say, even speculate, on how the Japanese would operate in the U.S. or how long before their entry would have more than token impact.

For example, would the initial intervention be a joint venture, such as the Texaco/Saudi Arabian or the Citgo/Venezuelan combines? Would it be through crude oil, refineries and thousands of service stations already in place? Or would it be a full acquisition of a second-tier company, also with one or more refineries and service stations, such as a Marathon or Phillips or Unocal?

Ah So: In Japan, Things Are Different—Or Are They?

It's interesting to note some of the intricacies of the Japanese marketing and distribution system as it currently operates.

For instance, according to a study explaining deregulation of the gasoline business, this is the way things are accomplished:

"In Japan, retailers do not pay for gasoline on delivery. Rather the retailers negotiate the purchase price with the supplier after the retailer has sold the gasoline. Retailers often engage in price wars to capture a larger market share. The refiners, to maintain marketing shares through the limited number of service stations, are obliged to subsidize the retailer."

The same study offers these comments:

"Deregulation of the gasoline retail industry has extremely important implications for Japanese refiners. Currently (in 1988) there were 59,082 service stations and 34,693 dealers in Japan. MITI (a government agency) has placed a moratorium on the number of service stations. A new station can be built only if another station is shut down."

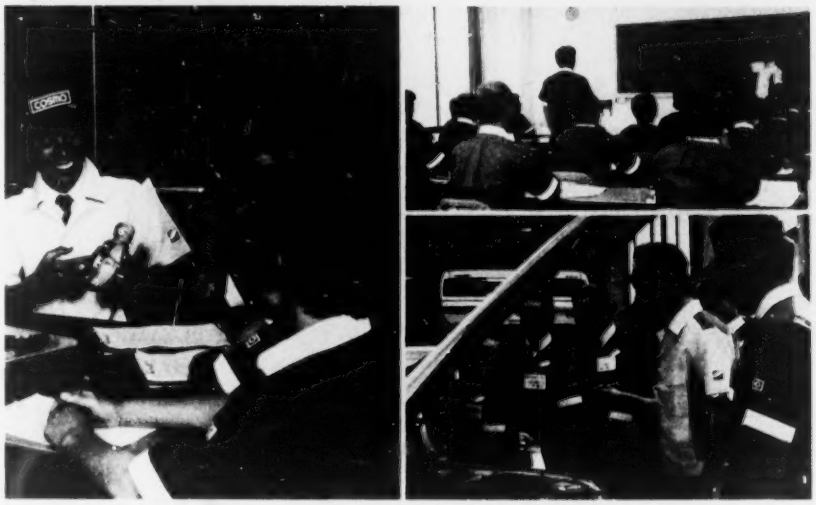
And here is more about the games that retailers and refiners play:

"A curious practice known as 'gyoten' has evolved between refiners and retailers. Prior to the liberalization of gasoline imports, a refiner wishing to increase gasoline sales beyond his production quota (government ceiling) could do so by buying gasoline from a competitor's retail outlet and then selling the gasoline at one of his affiliated stations.

"This type of operation is a somewhat costly maneuver since the retailer or distributor sells the gasoline to the refiner at spot prices which are substantially above the refiner's production costs and often above wholesale prices. (Anti-monopoly laws prevent refiners from selling directly to one another.) The refiner then sells the gasoline to his affiliate, often at below the wholesale price. Although import liberalization has offered refiners an alternative supply channel, this supply channel is limited by administrative (government) guidance. 'Gyoten' still operates as a main redistribution network."

One more little item for the road, from another study completed earlier this year:

"Gasoline is the cash cow of the Japanese refiners. The refiners have at times made large profits on gasoline due to high internal prices. These profits have been used to support low-priced sales of middle distillates, particularly kerosine. For Japanese refineries therefore, gasoline is the make-or-break fuel."



Japanese oil companies run their service people through training and certification courses to qualify for their jobs.

Or would it be just a string of service stations for openers, using them as a nucleus for more to come?

A small Texas firm with substantial expertise in unattended self-service operations was actively discussing such a possibility with a Japanese producer in January. These talks could very well reach a successful conclusion in the first quarter of this year. Such a thrust in this direction—unattended self service—could put an enterprising invader way up front in an advanced marketing concept just taking hold in the U.S.

The Japanese have the money to pretty well do as they please, make no mistake about that. The Japanese yen was worth half again as much as the U.S. dollar earlier this year. And the petroleum industry in the United States is about the only major area in their own oriental "Buy American" plan that they haven't penetrated yet. They are into banks, movies, communications, real estate (remember, they even bought 51% interest in Rockefeller Center in New York City—a nostalgic American show place—for $860-million last winter, and they already own the Exxon and Mobil skyscrapers also in Manhattan), etc, etc.

In January, they bought a holding firm that owns and operates a half-dozen restaurant chains that generated almost $200-million in profits last year and included such tourist strongholds as Mama Leone's in midtown New York. A New York investment firm reported in January that the Japanese

(Continued on page 36)

Overview: How Japanese Gasoline Marketers Operate

The Japanese are noted for the toughness of their street competition for gasoline volumes and their ability to prosper despite the thinness of government-controlled margins. Soon they will be competitors with American marketers, joining Shell, BP-America, Total, Citgo and Texaco's Star Enterprise in the lineup of foreign firms already in business here.

By American standards, most of their statistics and many of their activities aren't exactly comparable with those of their U.S. counterparts, however; recognizing, of course, that the island empire is only one-fifth the size of the United States but with a population density several times greater.

For example, a dozen oil companies not only dominate gasoline sales in the land of the Rising Sun, they own 100% of it. In the United States, an American Petroleum Institute concentration ratio study shows that the top 15 companies handle only 65% of the nation's volumes and that the next 15 push that figure up to only 76%. Dozens more, all independents, account for the final 25%.

Japan's gasoline consumption sounds enormous—43-billion liters in 1989. Translated into more familiar U.S. gallons, however, the consumption total is equivalent to 11.3-billion gal. That's roughly 10% of the U.S. total which was about 116-billion gal. last year. Stated another way, for comparison purposes only, that's a little less than what was sold in California alone in 1989; or by one company, Shell Oil, the nation's top gasoline marketer, in a full year.

Japan had 53,000 service stations, with the biggest single operator being Nippon Oil which has not quite 10,000 of them. By way of comparison, the U.S. has at least seven majors that have more than 10,000 stations each—Texaco, Exxon, Chevron, Mobil, Unocal, Shell and Amoco. Japan has a government lid on the service station population, however. Marketers can build new stations only to replace those that are torn down.

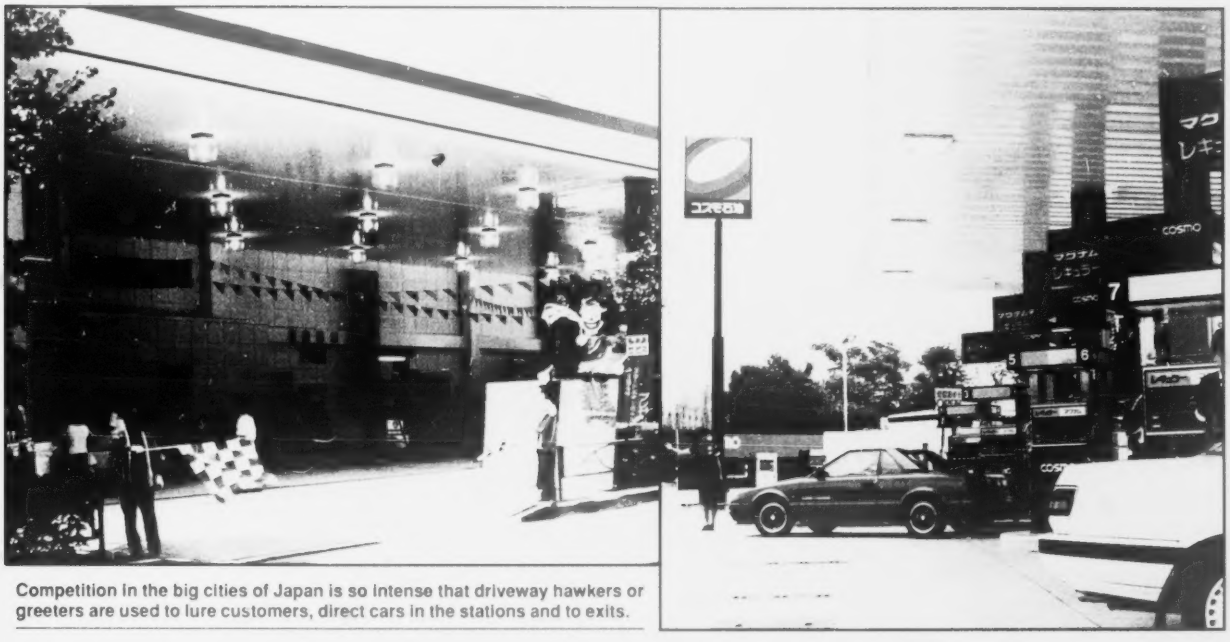
As might be expected, the throughput volumes at service stations are on the low side. This reflects not only the marketplaces themselves but also government restraints to dampen consumption. Stations average about 20,000 gal./mo. This average includes the Taiyo chain of 146 stations which has no competition in an insular area and thus records an unusual 65,000 gal./mo.

The United States has any number of stations that regularly sell more than 200,000 gal./mo. and some are known to exceed 500,000 to 600,000 gal./mo. In 1988, the Japanese stations served all of 52.5-million motor vehicles, vis-a-vis a U.S. total of 185-million.

Here's an informal, thumbnail commentary on Japanese gasoline marketing:

(Continued on page 35)

Use of credit cards is limited compared to the U.S. Foreign credit cards are increasingly accepted but rarely at service stations, if at all, outside of Tokyo. Oil companies are beginning to promote them for automotive purposes, however. Cosmo has three different credit cards: Red is for individual customers; Green/Blue for individual corporate and group customers; Blue for big customers.



Competition in the big cities of Japan is so intense that driveway hawkers or greeters are used to lure customers, direct cars in the stations and to exits.

(Continued from page 34)

To begin with, just about every type of service station operates in the marketplaces. To understand this, one must remain aware of the fact that the Japanese concept of selling goods is radically different from that which prevails in the United States or Europe.

The customer is truly king and expects the most detailed and attentive service to be provided, even for the sale of minor items. There is no such thing as self service. The idea of making a customer fill his own tank is unthinkable. No doubt this will change in the future but for the moment, self service is absolutely taboo in Japan.

Unleaded gasoline is mandatory. Pump prices are high by American standards. Unleaded regular sells for about $3.40/gal. Unleaded premium (98 octane) gets about $3.90/gal. The high prices reflect high taxes to help depress consumption.

Clean air programs are everywhere as are engine exhaust systems and catalytic filters. The Japanese, however, haven't gotten around yet to the U.S. industry's current—underground storage tanks and environmental regulations. That's yet to come.

Service stations in the urban areas are always fully manned with a number of forecourt personnel that would truly be surprising to an American consumer. In the larger service stations, these personnel swarm around a customer's car—washing the windows front and back, the body work, emptying ashtrays, inspecting liquid levels and so on. This type of service is almost obligatory even if the customer buys only one liter of gasoline. One liter is a bit larger than an American quart. Outside the metropolitan areas, this standard of service cannot be met uniformly but there exists the same degree of desire and determination by the attendants.

The size of stations and the range of services vary widely. Toyko, Osaka and other big city centers have many full-service stations with multiple car washes and service bays. Increasingly there are convenience store attachments with rest rooms and restaurant facilities. In the big cities, there are some 24-hour stations but these are not the rule. In the country, they are almost rare but the stations do operate from 6 a.m. until midnight.

The structure of the distribution network cannot be explained adequately with generalizations. There are many independently owned outlets as something approaching 70% are, in fact, outside the direct control of the wholesale distributors. There is an enormous variation of dealerships, sub-dealerships, concessionaires and retailers. This is the last segment of Japan's deregulation program that's now underway. It should be over by 1993. But observers are convinced that the resultant free market that will emerge is unlikely to be permitted to become a totally undisciplined free-for-all. Chaos resulting from untrammeled individual enterprise is not a popular concept in Japan and is contrary to a deep cultural current.

Credit cards, while not unknown, are somewhat limited in use and acceptance. Internally, the Japanese financial system is well behind the universal use of such accommodations. Foreign credit cards are increasingly accepted but rarely at service stations, if at all, outside of Tokyo. Oil companies are beginning to promote them for automotive purposes, however. Japan, nevertheless, is a cash society with billions of bank notes in circulation and cash dispensing machines all over the place. Despite this, robberies are rare and violence as a result of robberies even rarer.

Interestingly, Japanese consumers are seeking bigger and higher quality passenger cars. Auto makers shouldn't have trouble supplying such equipment. The basic problem is roadways and parking space. With two people for every motor vehicle in Japan now, traffic jams are dreadful and Tokyo itself may be overwhelmed and unable to handle any more.